Panasonic

Colour Television **TX-33A1G**
(U.K. Standard)

Operating Instructions

DIGITAL
FASTEXT
NICAM STEREO

Please read these instructions completely before operating this set.

TQB620596

Dear Panasonic Customer

Welcome to the Panasonic family of customers.
We hope that you will have many years of enjoyment from your new colour television set.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Blue : Neutral Brown : Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

1. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
2. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

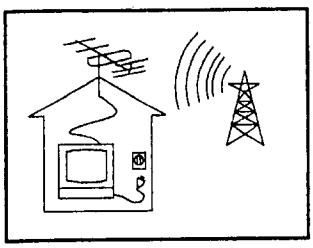
A 5 amp fuse must be fitted either in the plug or adaptor or at the distribution board.
If in doubt, consult a competent electrician.

Contents

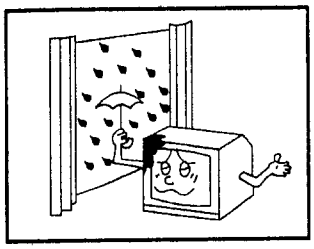
Warning and Cautions 2
New Feature (Digital Function) 3
Battery Installation and Replacement 4
How to open the door on the rear of the Remote Control 5
Location of Controls (Infrared Remote Controller) ..... 6 - 7
Location of Controls (Front and Control Panel) 8
Connections ..... 9 - 11
Tuning Procedure 12
General Operation ..... 13 - 14
NICAM System ..... 15 - 16
Remote Control Operation for TV ..... 17 - 19
Digital Functions ..... 20 - 25
TELETEXT Operation ..... 26 - 32
Remote Control Operation for VTR 33
Connection (External Speaker Terminals) 34
Specifications 35

Warning and Cautions

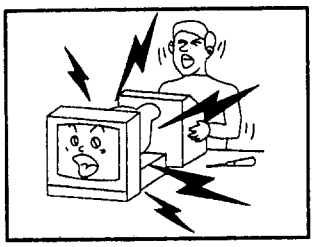
Power Source and TV System



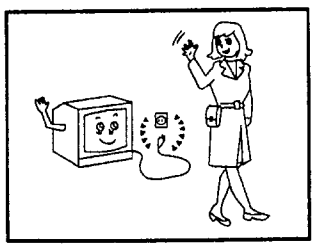
This TV set can be operated on AC 240 V, 50 Hz.
It is designed exclusively for broadcast system PAL I.
(U.K. Standard)



To prevent damage which may result in fire or electrical shock hazard, do not expose the TV set to rain or excessive moisture.

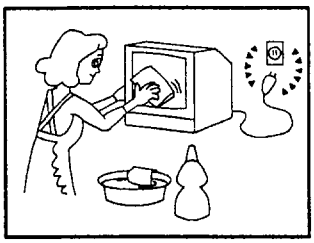


High Voltage:
Do not remove the rear cover as live parts are accessible when it rear cover is removed.

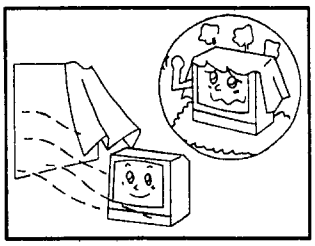


Remove the plug from the wall outlet (Power point) when the TV set is not used for a prolonged period of time.

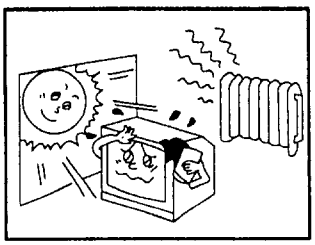
Cabinet and Picture Tube Care



The cabinet and picture tube can be kept in good condition by simply wiping with a clean, soft cloth moistened with mild detergent and water. Do not use solutions containing benzol, petroleum or a chemical cloth. For safety, remove the plug from the wall outlet.



Adequate ventilation is essential to prevent failure of electrical components.



Avoid exposing the TV set to direct sunlight and other sources of heat.

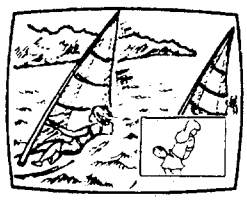
New Feature (Digital Function)

(Refer to page 20 through 25.)

Picture Memory

Features :
Important pictures can be stored in memory at the push of a button for later retrieval. It offers the choice of two modes :
Single-picture screen and four-picture screen.

Picture in Picture



Features :
This mode displays both the TV picture and the picture from an AV source on the same screen, for convenient monitoring of AV input while watching TV.

Programme Search

Features :
This function makes it possible to search through all programme positions and display a still picture of each on a four-picture or nine-picture screen.

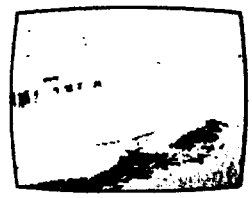
Strobe

Features :
This function can be used to display sequential still pictures in the full-screen, 9-picture, and 16-picture screen at different stroboscopic speeds.

Mosaic Art

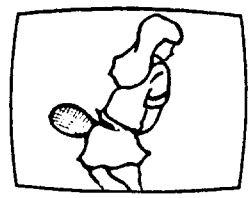
Features :
This function breaks up the screen into small square cells to display a moving or still picture with mosaic effect. The mosaic effect can be varied in three stages.

Paint Effect



Features :
This function can be used to display an oil-painting-like moving or still picture. The oil-painting-like effect can be varied in three stages.

Still



Features :
This function can be used to freeze the action on the screen and display a still picture.

Contents

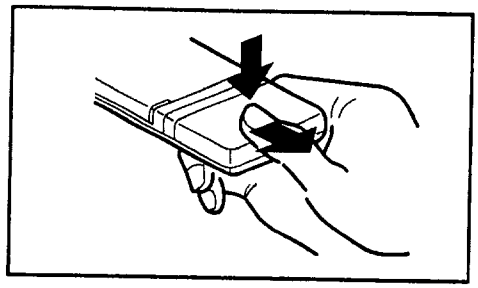
Digital Functions

Picture Memory 20
Picture in Picture 21
Channel Search 22
Strobe 23
Mosaic Art 24
Paint Effect 24
Still 25

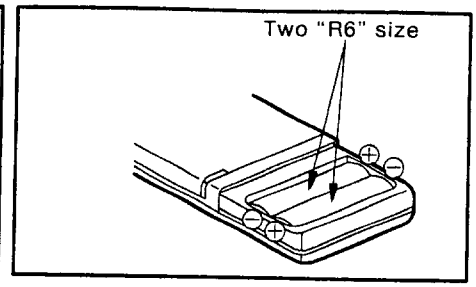
Open on this side

Battery Installation and Replacement (Infrared Remote Controller)

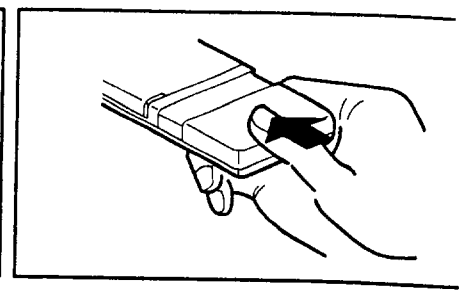
Batteries : Use two "R6" size dry cells. (Supplied)



1. Open the cover.
   (Push down stopper and remove the cover.)



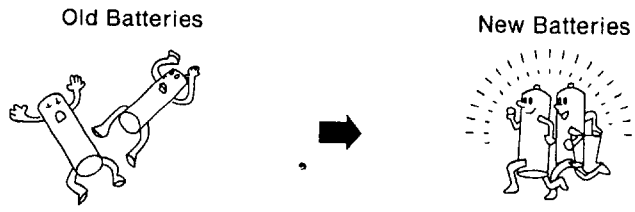
2. Replace the batteries.
   (Insert the batteries with the correct polarity as indicated by the (+) and (−) symbols.)



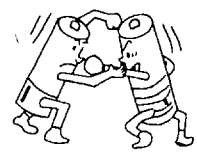
3. Replace the cover.

Battery precautions

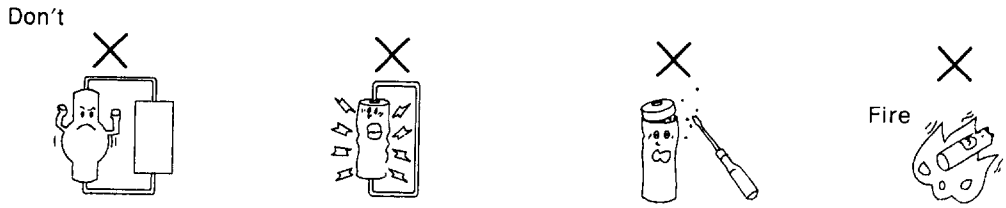
The incorrect use of batteries can cause electrolyte leakage which will corrode the remote control transmitter or cause the batteries to burst. The following precautions must be observed carefully.



Replace both batteries at the same time.
Dispose of them immediately.



Don't mix battery types
(alkaline with carbon zinc, etc.).



Notes:

1. The remote control transmitter should be placed to avoid direct sunlight or heat.
2. Direct sunlight or intense light to the infrared window of the receiver may lead to malfunction of the remote control transmitter.
3. Pressing more than two buttons at a time, can lead to operating malfunction.

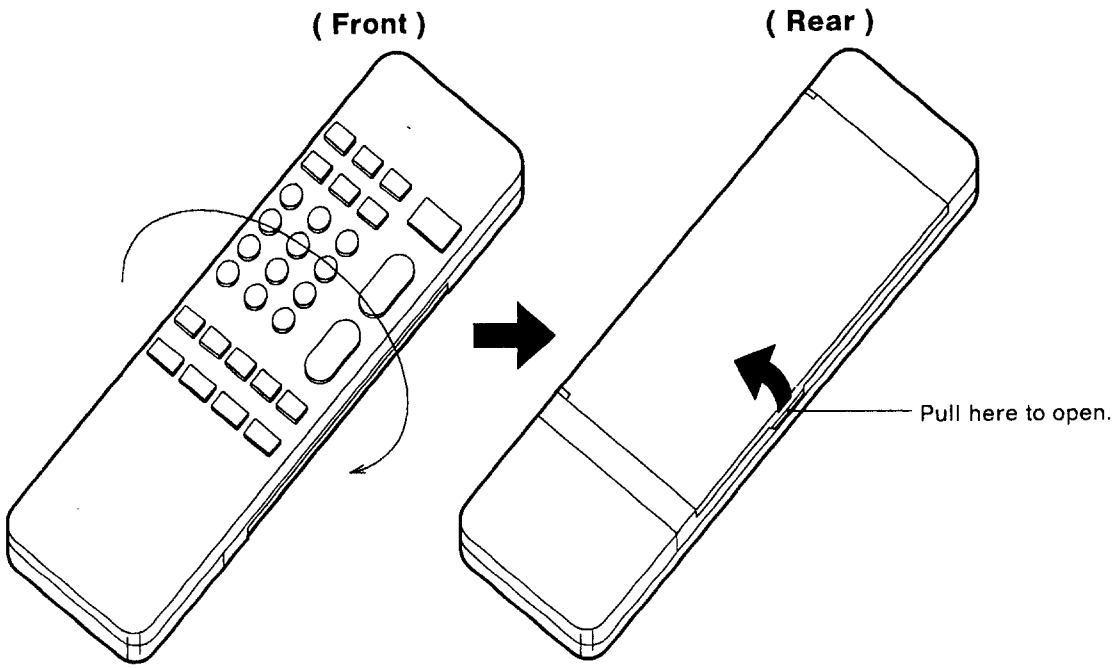
Do not use rechargeable (Ni-Cd)batteries.
They are partially different in shape and performance and may fail to ensure the desired function.

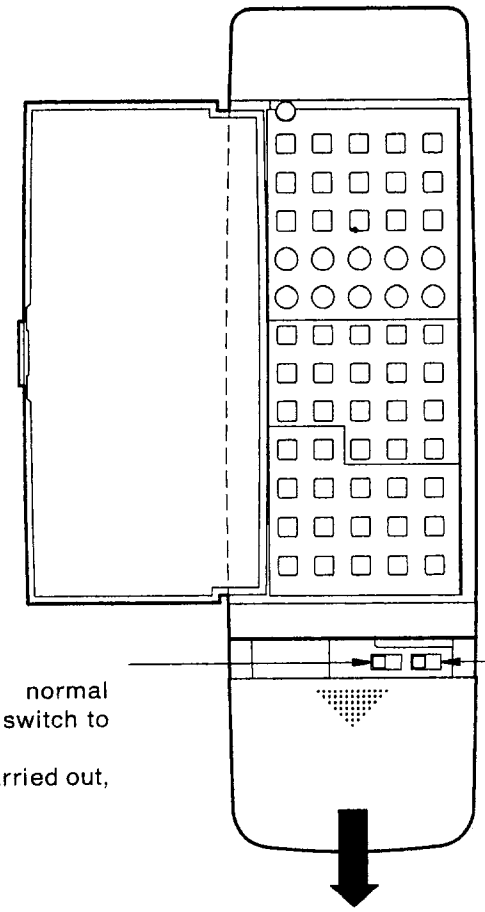
IMPORTANT:

If power is removed from the set by any means other than switching off using the Power Switch it is recommended that before resuming viewing, the TV is first switched off and then on again using the Power switch to avoid any malfunction.

Open upward

w to open the door on the rear of the Remote Control





lode Select Switch
used with normal
onic VTR, set this switch to

ration cannot be carried out,
"8B".

Remote Control Switching
S-Position :
With the door open, the buttons on the front cannot be used.
(Only the buttons under the door can be used.)

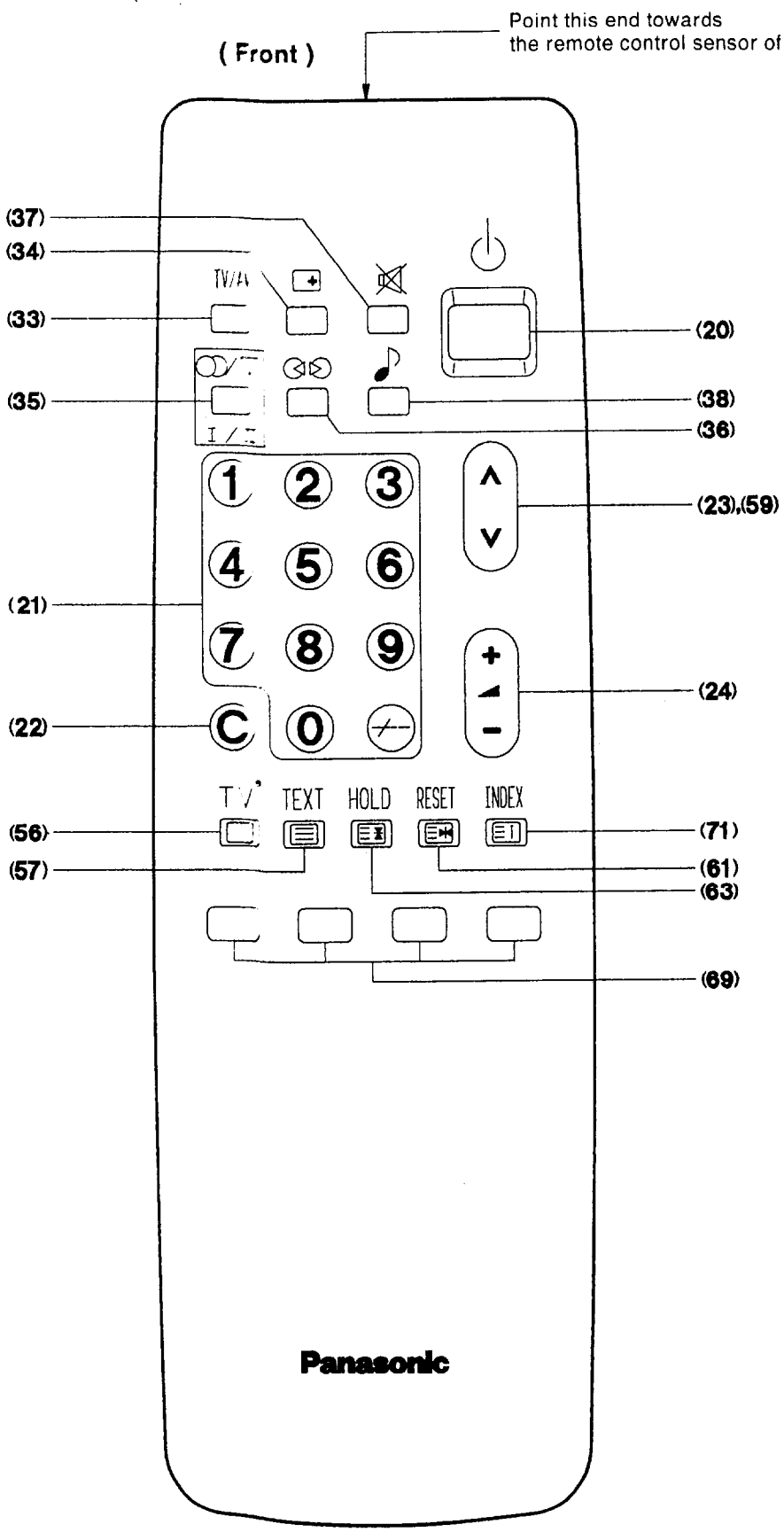
D-Position :
The buttons on the front and inside the door can be used.
Place the Remote Control in such a way that all Buttons on both sides can be used easily.

Open the cover
(Push down and Slide the cover out.)

Open upward

Location of Controls (Infrared Remote Controller)

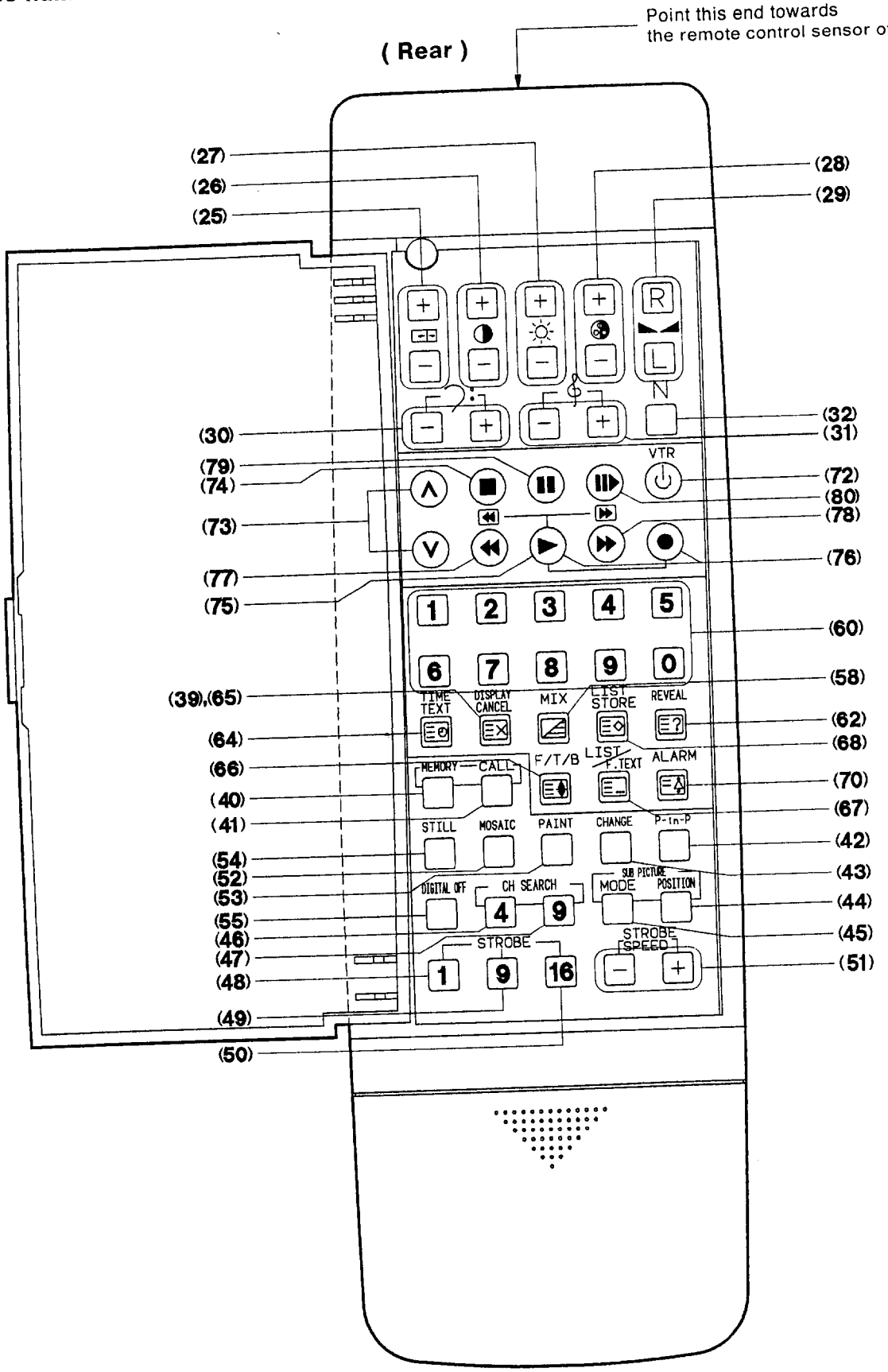
(The numbers on this page are explained on pages 15 to 32.)



The Remote Control operating instructions with numbers and titles in black are the explanations for the buttons on the outside.

Location of Controls (Infrared Remote Controller)

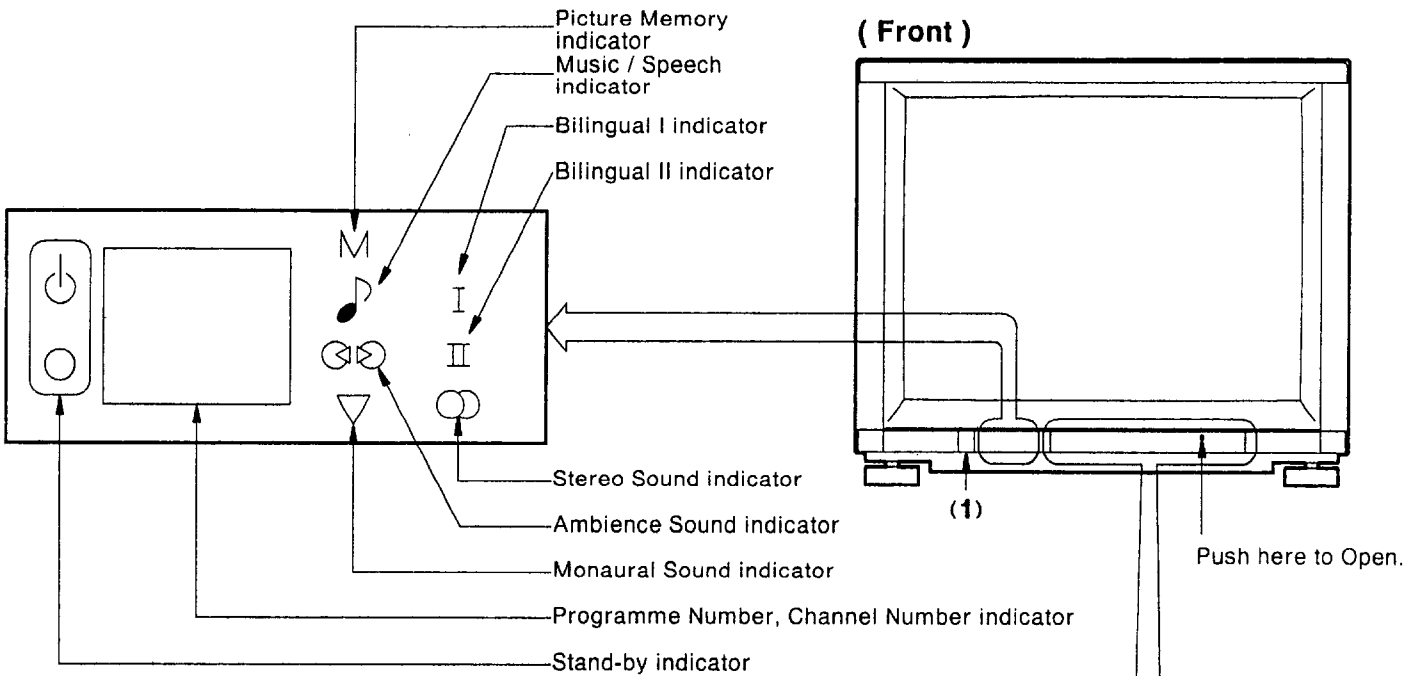
(The numbers on this page are explained on pages 17 to 33.)



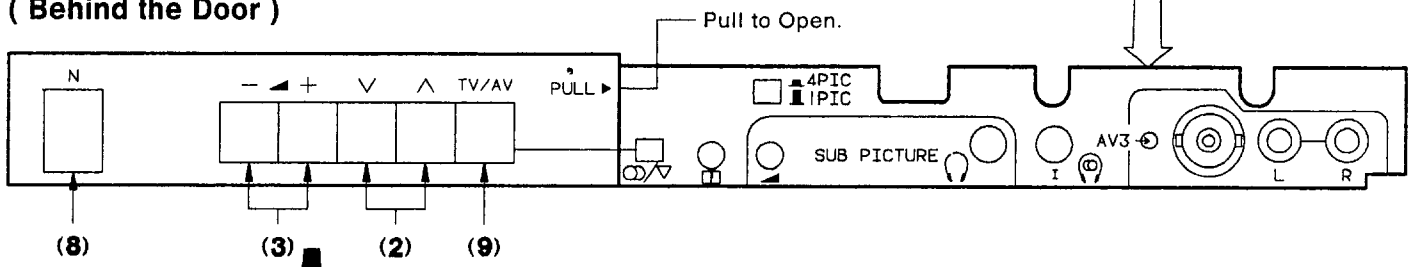
The Remote Control operating instructions with numbers and titles in blue are the explanations for the buttons under the door.

Location of Controls (Front and Control Panel)

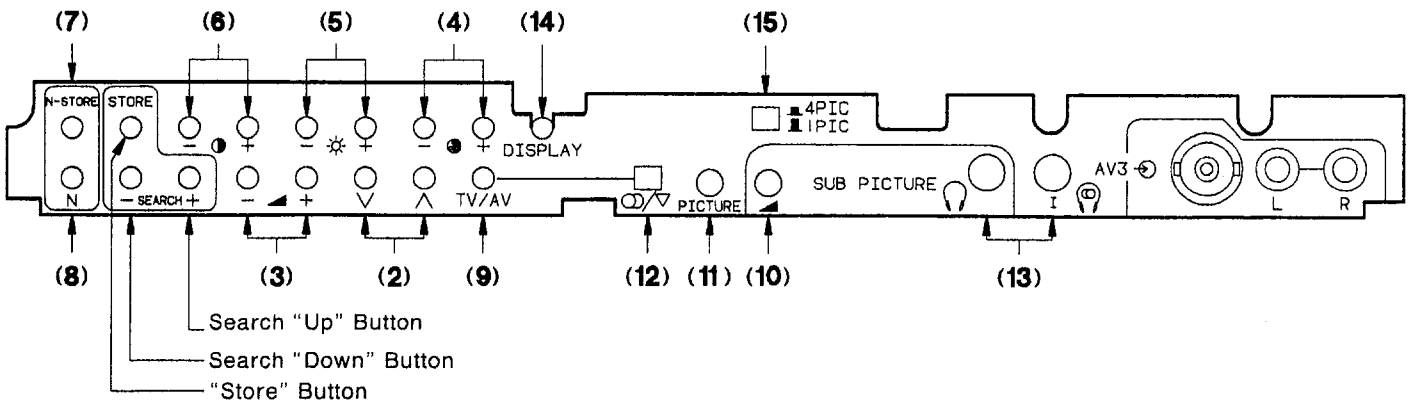
(The numbers on this page are explained on pages 13 to 14.)



(Behind the Door)



(Behind the Control Panel)



Cc

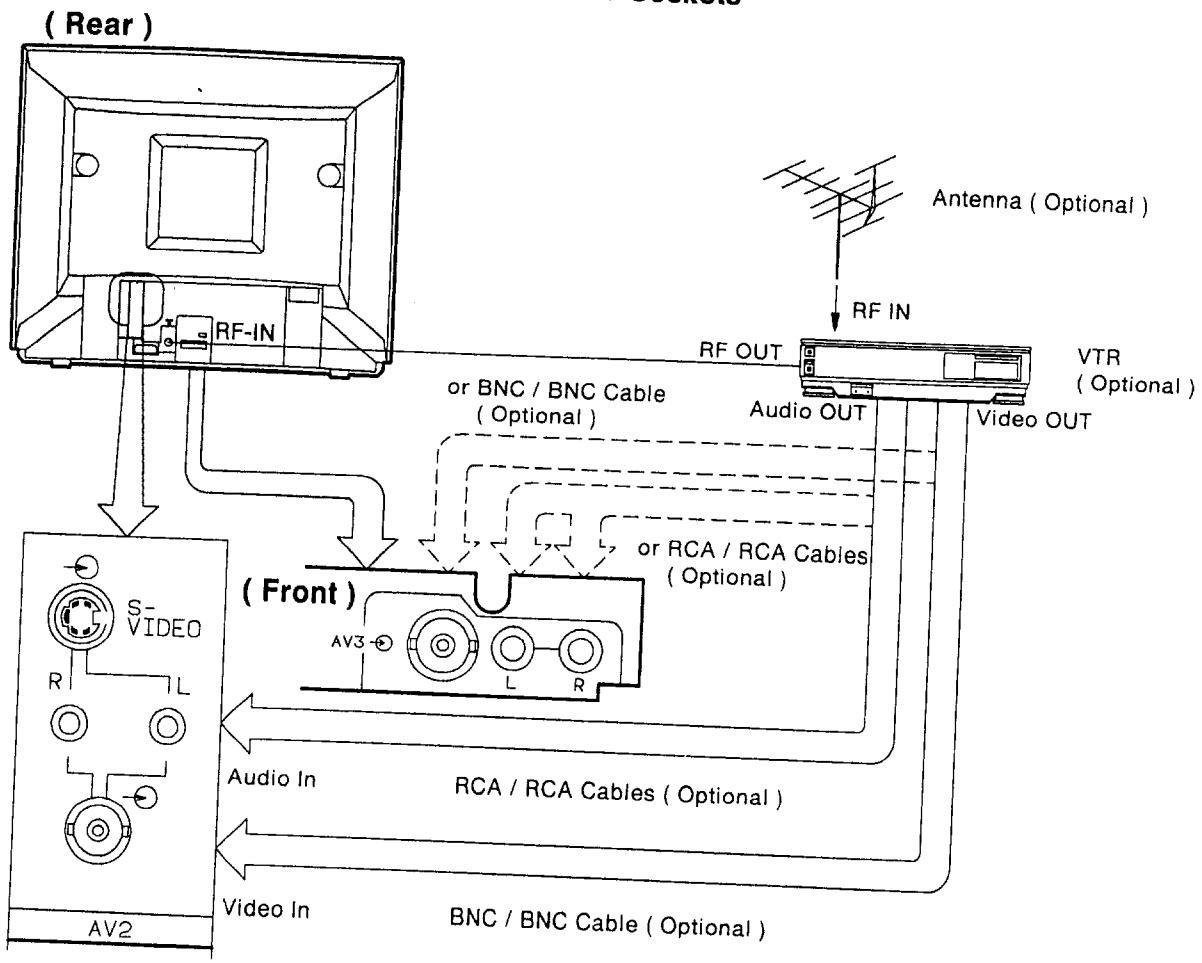
(1) T

(2) Tc

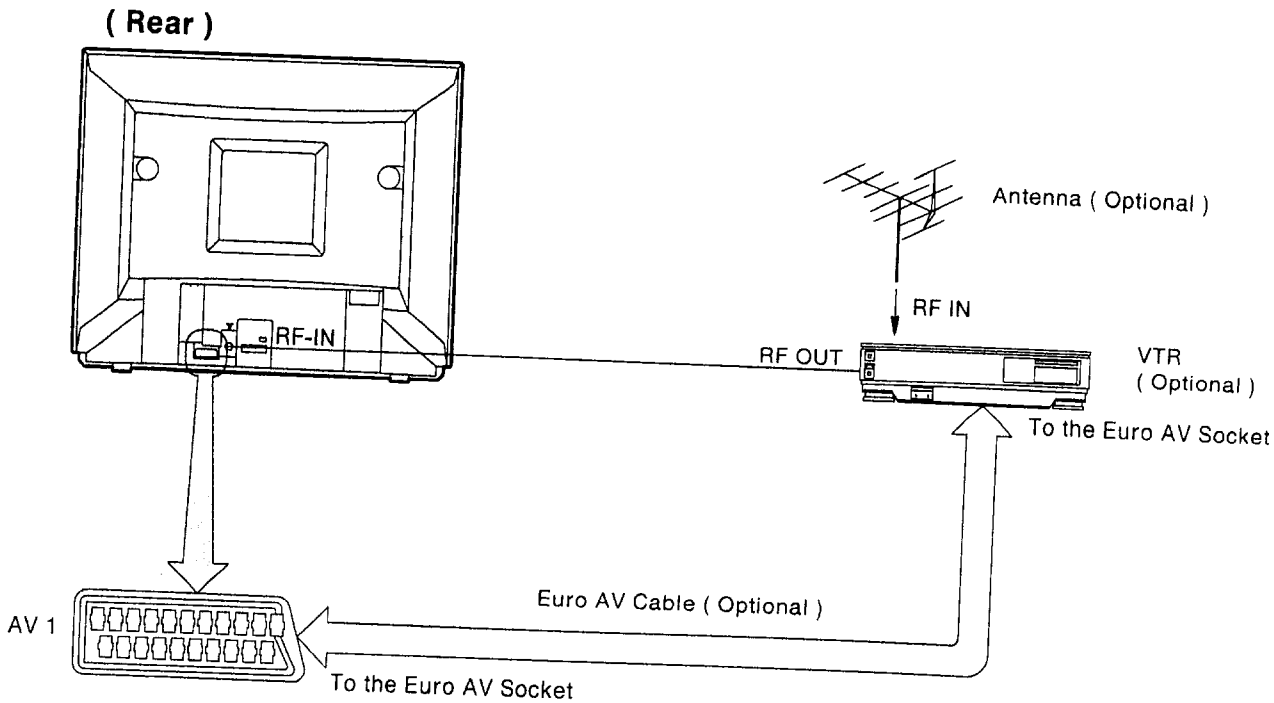
Note :
Consul
Refer t
"On-sc
Out" sc

Connections

(1) To VTR not equipped with Euro AV and S-VIDEO Sockets



(2) To VTR equipped with Euro AV socket



Note :

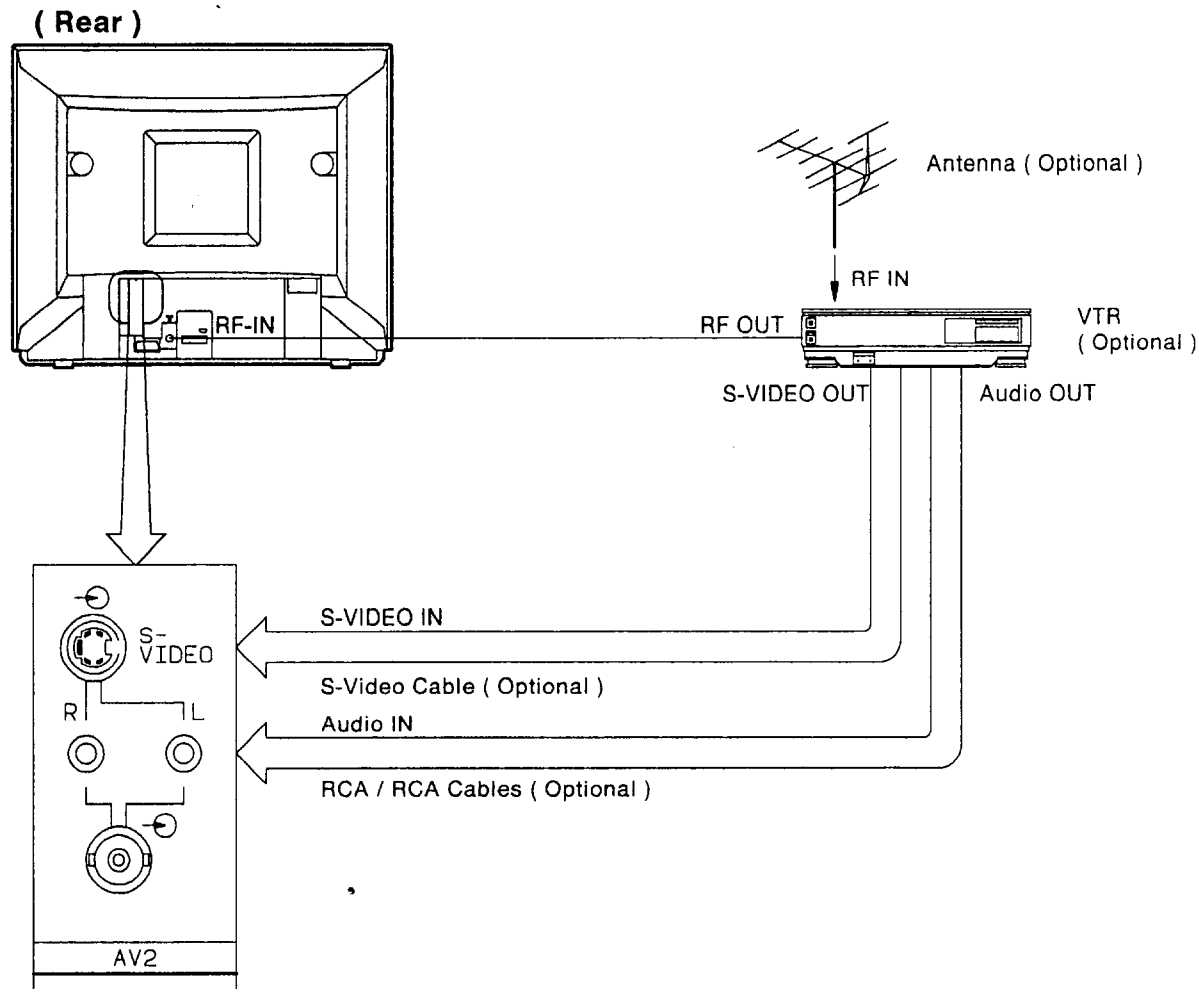
Consult your dealer for suitable cables.

Refer to operating instructions of VTR for details.

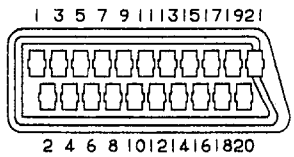
"On-screen" display signals ,TEXT Signals and Digital processed signals are not output from the "AV1" and "Monitor Out" sockets to VTR.

Connections

(3) To VTR equipped with S-VIDEO Socket



Connection of the Euro AV Socket

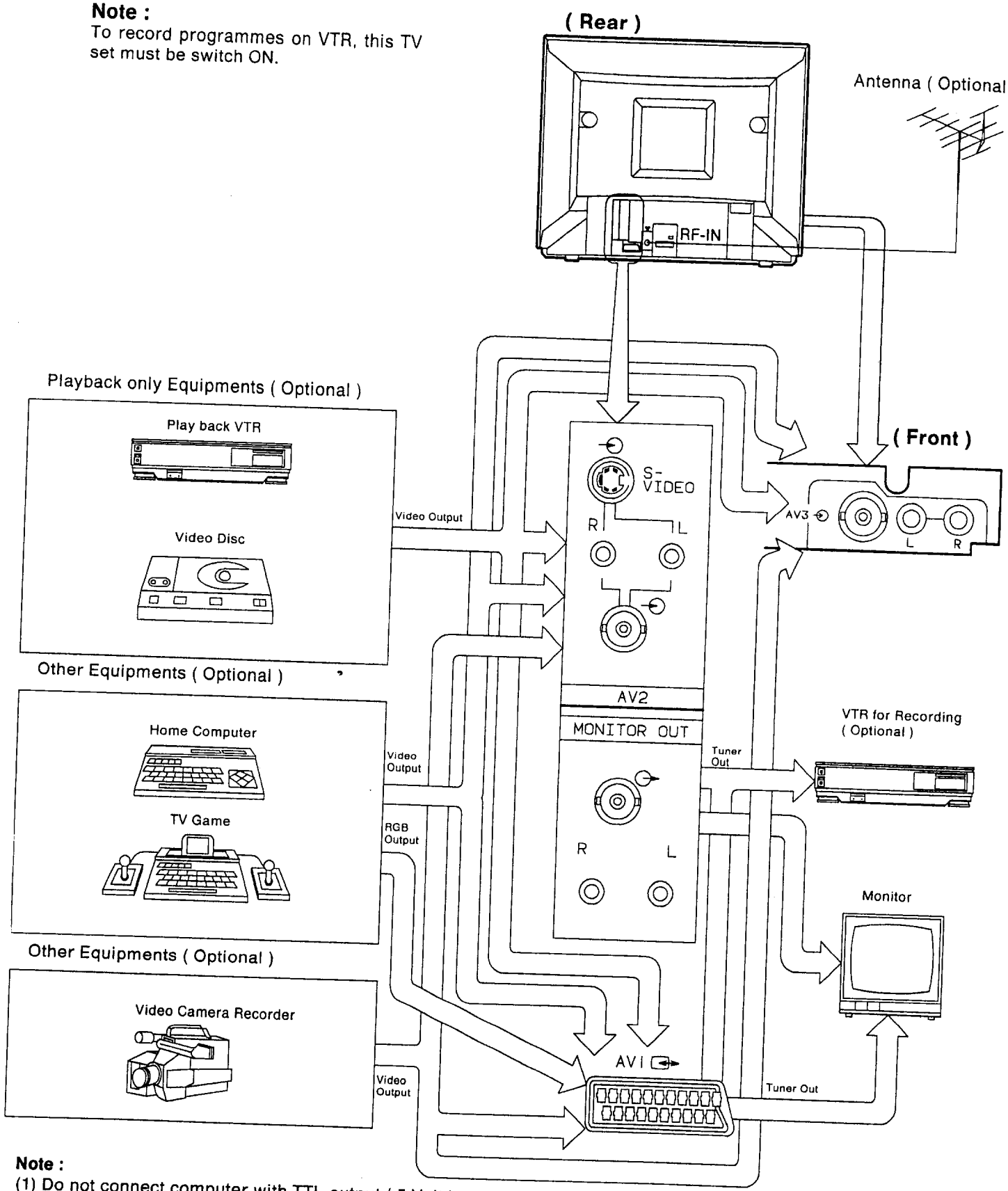


1 AUDIO OUTPUT CH2 (R)	7 No connection	12 No connection	17 VIDEO GND
2 AUDIO INPUT CH2 (R)	8 SWITCHING	13 No connection	18 No connection
3 AUDIO OUTPUT CH1 (L)	VOLTAGE	14 No connection	19 VIDEO OUTPUT
4 AUDIO GND	9 No connection	15 No connection	20 VIDEO INPUT
5 No connection	10 No connection	16 No connection	21 GND
6 AUDIO INPUT CH1 (L)	11 No connection		

Connections

(4) To other optional equipment

Note :
To record programmes on VTR, this TV set must be switch ON.



Note :
(1) Do not connect computer with TTL output (5 Volt) to this TV set.
(2) "Monitor Out" Terminals contain signals which are on the TV screen at that time, e.g. TV programmes or signals from AV1, AV2 or AV3 input. (Excluding RGB Input and Digital processed Signals)

Tuning Procedure (By using Remote Controller or Controls Panel)

Method 1 : (If channel numbers of TV stations are known.)

Step 1 :
Select your desired programme number by using the remote control keys.

1. When selecting one-digit Programme Nos. 1 to 9 :
   e.g. To select Programme "3" :
   a) Push the button "3" on the remote control transmitter.

2. When selecting 2-digit Programme Nos. 10 to 50 :
   e.g. To select Programme "25" :
   a) Push the "-/--" Button on the remote control transmitter first.
   b) Push the "2" Button second.
   c) Push the "5" Button third.

Note : This is the indicator for the programme number only, not the actual channel number.

Step 2 :
Select the actual channel number which can be received in your area directly with the remote control.

a) Push the "C" Button, Display panel will show " – – ".
b) Enter desired channel number.
e.g. To tune to channel 36, push "3"and "6" Buttons consecutively.

Step 3 :
Push "STORE" Button on the controls panel of TV set. (Memory operation completed)

Step 4 :
Repeat **steps 1** through **3** to the remaining channels.
A maximum of 50 channels can be programmed.

Method 2 : (If channel numbers are not known.)

1. Select a desired programme number (1 through 50) indicated by the programme indicator by pushing the Programme Up "∧" or Down "∨" Button, or using **Step 1** above.

2. Push the Search Up " + " or Down " – " Button.
   When either of these buttons is pushed the programme indicator will show the channel number of the TV station last stored.
   The TV is now searching for the next channel that has a TV station available.

3. The TV will automatically stop searching when a channel has been found.
   If this is not the desired channel push either Search Up " + " or Down " – " Button to start search again.
   When the desired channel is found, push the "STORE" Button.

4. Repeat Steps 1 through 3 for each programme number required.

Note :

1. There are 50 programme numbers available. (1 through 50)

2. If the "STORE" Button is not pushed, the programme will remain on the TV screen until either the Search Up " + " or Down " – " Button is pushed again, or TV set is switched off, or programme position changed.

3. Do not store after operating "Fine Tuning".

General Operation of controls panel on TV Set

(Refer to diagram on page 8.)

(1) Power Switch

Push this button to turn the receiver on.
(Programme number indicator will light up.)
Push again to turn off.

(2) Programme Number Up and Down Buttons

Push the Programme Number Up "∧" Button to select the higher programme numbers.
Push the Programme Number Down "∨" Button to select the lower programme numbers.

(3) Volume Up "+" and Down "−" Buttons

Push the Volume Up "+" Button to increase the sound level.
Push the Volume Down "−" Button to decrease the sound level.

(4) Colour Up and Down Buttons

Push the Colour Up "+" Button to increase the colour (saturation) level.
Push the Colour Down "−" Button to decrease the colour (saturation) level.

(5) Brightness Up and Down Buttons

Push the Brightness Up "+" Button to increase the brightness level.
Push the Brightness Down "−" Button to decrease the brightness level.

(6) Contrast Up and Down Buttons

Push the Contrast Up "+" Button to increase the contrast level.
Push the Contrast Down "−" Button to decrease the contrast level.

(7) N-Store Button (Normalisation Store Button)

By pushing the "N-STORE" Button on the TV set, you can memorised the following controls at desired levels : Volume, Contrast, Brightness, Colour, Balance, Bass and Treble.

Procedure

1. Set the above controls to the desired levels.
2. By pushing the "N-STORE" Button, all of the set levels of controls listed above will be memorised.

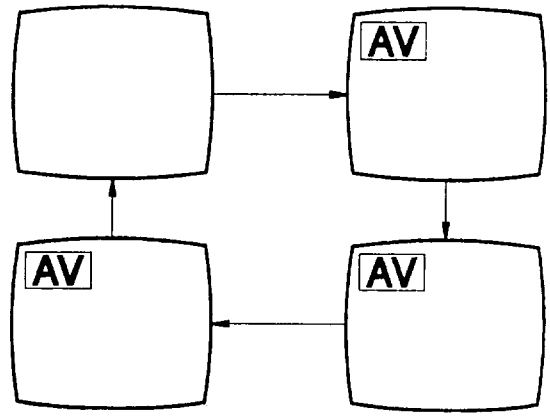
(8) Normalisation Button

By pushing this button, the levels of Volume, Contrast, Brightness, Colour, Balance, Bass and Treble will be restored to the levels memorized in "N-STORE" Function.
Push the Normalisation "N" Button in the Teletext mode and the Digital Function mode, will change back to TV mode.

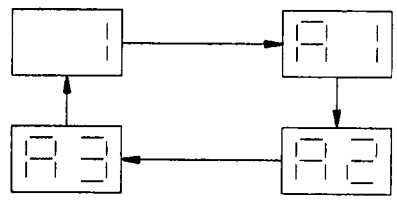
(9) TV / AV Selection Button

By pushing this button, you can sequentially select TV and three AV modes (AV1, AV2, and AV3), as shown below.
"AV" will appear on the top left of the screen only if a video signal appears at the input terminals.

TV-Screen



Programme Number Indicator



Note :
TV mode showing programme number "1" selected.

Note :
When NO A/V Signal is applied, the on-screen indicator (AV) may be unstable, after selecting AV mode (AV1, AV2 and AV3).
However, this is not due to mulfunction.

(10) Sub Picture Volume

This control is only effective for the volume level of Sub Picture.

(11) Picture Control

Turn clockwise or Anti-clockwise to Adjust picture sharpness.

General Operation of controls panel on TV Set

(Refer to diagram on page 8.)

(12) Stereo / Mono Selection Button

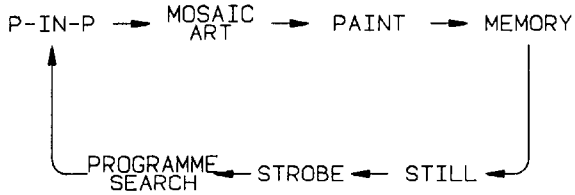
(AV mode only)
Normally, set the "Stereo / Mono Selection" Button to "Stereo" position.
Stereo position : Stereo Indicator will light up.
Mono position : Monaural indicator will light up.

(13) Headphones
(For Stereo headphone only)

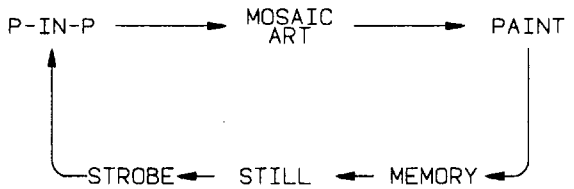
Socket I : Main picture sound
Sub Picture Socket : Sub Picture Sound

(14) Display Button

TV Mode :
By pushing the "Display" Button, the digital modes automatically changed as follows.



AV Mode (AV1, AV2 and AV3) :
By pushing the "Display" Button, the digital modes automatically changed as follows.



To cancel the digital display mode, push the "Display" Button again or push any Button of Remote Controller.

(15) Memory Button

This button is used for the Picture Memory function described on page 19.

NICAM System

(Refer to diagram on pages 6 and 8.)

The NICAM system is a ground-based TV service for digital stereo sound developed by the BBC.
To receive NICAM broadcasts, the TX-33A1G incorporates a NICAM decoder.
When a stereo, dual-soundtrack or monaural NICAM programme is being received, the indicators light to inform you of the type of broadcasts.

(35) Sound Channel Selection Button

Sound output can be selected by pushing "Sound channel Selection" Button on the Remote Control Transmitter.

Note :

If the stereo signal is weak or the receiving condition extremely poor, it is recommendable to switch to the "Mono" Mode.

Independent Switching Operation of Receiving Signal

To carry out switching operation, use "Sound Channel Selection" Button of the Remote Control Transmitter. Sound will change as per the following with each press.

TYPE OF BROADCAST	SWITCHING OPERATION
REGULAR BROADCAST (STANDARD AUDIO)	STANDARD AUDIO
REGULAR+NICAM STEREO	STEREO → STANDARD AUDIO
REGULAR+NICAM MONO I	NICAM MONO I → STANDARD AUDIO
REGULAR+NICAM DUAL MONO	NICAM MONO I → NICAM MONO II → NICAM MONO I+II → STANDARD AUDIO

Selection Mode & Receiving Signal Correlations

SELECTION MODE	TYPE OF BROADCAST			
	REGULAR BROADCAST	REGULAR+NICAM STEREO	REGULAR+NICAM MONO	REGULAR+NICAM DUAL MONO
REGULAR	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
NICAM STEREO	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO I
NICAM MONO I	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO I
NICAM MONO II	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO II
NICAM MONO I+II	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO I+II

Notes :

1. When the power is set ON, the mode is pre-set at "NICAM MONO I / STEREO".
2. Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
3. When the receiving conditions deteriorate, listening will be easier if the STANDARD AUDIO Mode is set at "REGULAR" position.

NICAM System

(Refer to diagram on pages 6 and 8.)

Correlations between Receiving Signal, Selection Mode, Indication and Sound Out

TYPE OF BROADCAST	SELECTING MODE	INDICATION	SOUND OUT			
			SPEAKER		HEADPHONE	
			L-CH	R-CH	L-CH	R-CH
REGULAR BROADCAST (STANDARD AUDIO)	REGULAR	NO INDICATION	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
REGULAR + NICAM STEREO	NICAM STEREO	⊙⊙	STEREO L	STEREO R	STEREO L	STEREO R
	REGULAR	▽	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
REGULAR + NICAM MONO I	NICAM MONO I	I	NICAM MONO I	NICAM MONO I	NICAM MONO I	NICAM MONO I
	REGULAR	▽	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
REGULAR + NICAM DUAL MONO	NICAM MONO I	I	NICAM MONO I	NICAM MONO I	NICAM MONO I	NICAM MONO I
	NICAM MONO II	II	NICAM MONO II	NICAM MONO II	NICAM MONO II	NICAM MONO II
	NICAM MONO I+II	I II	NICAM MONO I	NICAM MONO II	NICAM MONO I	NICAM MONO II
	REGULAR	▽	REGULAR	REGULAR	REGULAR	REGULAR

Remote Control Operation for TV

(Refer to diagram on page 6 and 7.)
The Remote control can only be used when the "Power" Switch on TV set is in the ON position.

(20) TV ON / OFF Button

Push this button to turn the TV set off.
(The Stand-by Indicator will light up.)
Push it again to turn the TV set on.

Note :
Do not leave the TV set in the stand-by condition for a long period of time.
It is better to switch it off when you are away for extended period of time.

(21) Direct Programme Number Selection Buttons

1.One digit programme number

(Programme No.0-9)

e.g. Selecting programme "3"

a) Push the "3" Button.

2.Two digit programme number

(Programme No.10-50)

e.g. Selecting programme "23"

a) Push the "-/--" Button first.
b) Push the "2" Button second.
c) Push the "3" Button third.

(22) Direct Channel Selection

By pushing this button, the actual channel number can be entered directly.

a) Push the "C" Button, Display panel will show "– –".
b) Enter desired channel number.
e.g. To tune to channel 36,
Push "3" and "6" Buttons consecutively.

Note:
The channel number indication changes to previously selected Programme number in a few seconds.

(23) Programme Number Up and Down Buttons

Push the Programme Number Up "∧" Button to select the higher programme numbers.
Push the Programme Number Down "∨" Button to select the lower programme numbers.

(24) Volume Up "+" and Down "–" Buttons

Push the Volume Up "+" Button to increase the sound level.
Push the Volume Down "–" Button to decrease the sound level.

(25) Fine Tuning button

Use this button to eliminate or minimize interference.
Fine tuning can't store. Therefor when change programme, need fine tuning again.

(26) Contrast Up and Down Buttons

Push the Contrast Up "+" Button to increase the contrast level.
Push the Contrast Down "–" Button to decrease the contrast level.

(27) Brightness Up and Down Buttons

Push the Brightness Up "+" Button to increase the brightness level.
Push the Brightness Down "–" Button to decrease the brightness level.

(28) Colour Up and Down Buttons

Push the Colour Up "+" Button to increase the colour (saturation) level.
Push the Colour Down "–" Button to decrease the colour (saturation) level.

(29) Balance R and L Buttons

Push the Balance (R) to bias sound to the right hand side.
Push the Balance (L) to bias sound to the left hand side.

(30) Bass

Push the Bass Up "+" Button to increase the bass level.
Push the Bass Down "–" Button to decrease the bass level.

(31) Treble

Push the Treble Up "+" Button to increase the treble level.
Push the Treble Down "–" Button to decrease the treble level.

Remote Control Operation for TV

(Refer to diagram on page 6 and 7.)

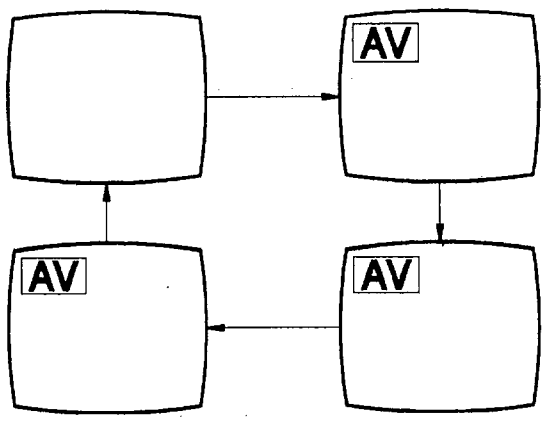
(32) Normalisation Button

By pushing this button, the levels of Volume, Contrast, Brightness, Colour, Balance, Bass and Treble will be restored to the levels memorized in "N-STORE" Function.
Push the Normalisation "N" Button in the Teletext mode and the Digital Function mode, will change back to TV mode.

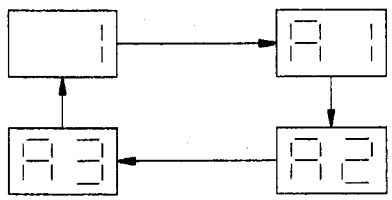
(33) TV / AV Selection Button

By pushing this button, you can sequentially select TV and three AV modes (AV1, AV2, and AV3), as shown below.
"AV" will appear on the top left of the screen only if a video signal appears at the input terminals.

TV-Screen



Programme Number Indicator



Note :
TV mode showing programme number "1" selected.

Note :
When NO A/V Signal is applied, the on-screen indicator (AV) may be unstable, after selecting AV mode (AV1, AV2 and AV3).
However, this is not due to any mulfunction.

(34) Status Button

The "Status" Button can be pushed to activate the On-Screen display at any time.

a) On the TV screen, the programme number will be displayed on the top left hand side of the screen and channel number will be displayed on the Programme Number, Channel Number indicator, the time at the top right hand side and the TELETEXT's name for that station, if broadcasted, at the bottom of the screen.

b) also, if the Alarm has been set then the time left will be displayed at the bottom center of the screen.

Note:
The time will only be displayed at the top right of the screen if the station is broadcasting teletext.

(35) Sound Channel Selection Button

Sound output can be selected by pushing "Sound channel selection" Button on the remote control hand unit.

Note :
If the stereo signal is weak or the receiving condition extremely poor, it is recommendable to switch to the "Mono" Mode.

(36) Ambience Button

Push the "Ambience" Button to obtain better acoustic sound from the speakers.

Ambience sound is dynamic sound system that give a feeling of greater acoustic presence.
The system automatically selects stereo ambience or monaural ambience according to the broadcast signal.

Remote Control Operation for TV

(Refer to diagram on page 6 and 7.)

(37) Mute Button

Push the "Sound Mute" Button once to mute the sound.
To return the sound to its previous or normal level, perform one of the following operations.

1. Push the "Sound Mute" Button again.
2. Push the "Power" Switch to turn the TV off and then switch on again.
3. Push the Volume Up " + " Button or the Volume Down " − " Button on the TV.
4. Push the "TV ON / OFF" Button on the remote controller to turn the TV to "STAND-BY", then turn the TV on again.
5. Push programme Up "∧ " or Down " ∨" or any one of channel selection buttons.
6. Push the Normalisation "N" Button to return the sound to the normalised level.

(38) Music / Speech

This button can be used to enhance the TV programme sound.
(The "Music / Speech" indicator on the front will light when selected "Music" Mode.)

Music Mode
To have a wider frequency range.

Speech Mode
To have a soft tone for easier listening.

Note :
Bass, Treble can't operate even screen display come out on screen.

(39) Display Cancel Button

Normally, in TV mode, when Volume, Contr
Colour, Brightness, Balance, Bass and Tre
Buttons are pushed, each function level is col
displayed at the bottom of the screen.
When this colour display is turned OFF, pu
"Display Cancel" Button.

Colour Bar Cancel Operation

Step 1 :
Push "Display Cancel" Button : a Black bar w
appear at the bottom of the screen.

Step 2 :
The above operation will cancel each functi
level display and colour bar display.
Push "Display Cancel" Button again.
Red Bar will be displayed.

Digital Functions

1. Picture Memory Function

Features :
Important pictures can be stored in memory at the push of a button for later retrieval.
It offers the choice of two modes : Single-picture screen and four-picture screen.

Operation Buttons :
Remote Control :
(40) MEMORY Button
(41) CALL Button
(55) DIGITAL OFF Button

TV Set :
(15) Picture Memory Selection Button

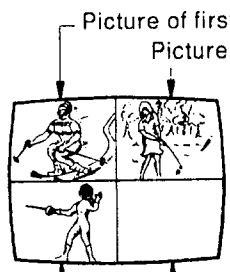
Operation

Step 1.
Push the "Picture Memory Selection" Button on the TV Set to choose the single-picture or four-picture screen mode.
4 PIC : Four different pictures, each a quarter the normal size, can be stored.
1 PIC : One normal-size picture can be stored.

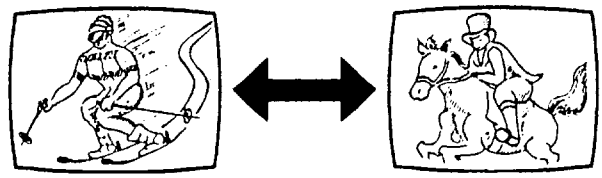
Step 2.
Push the "Memory" Button when a picture that you want to store appears on the screen. The moving picture will be stopped for about a second and will be stored in memory. The "M" Picture Memory Indicator on the front panel of the TV set will light up.
a) Storing a single full screen picture

Note :
The "Memory" Button does no longer work after it was pushed once (only one normal-size picture can be stored at one time.)

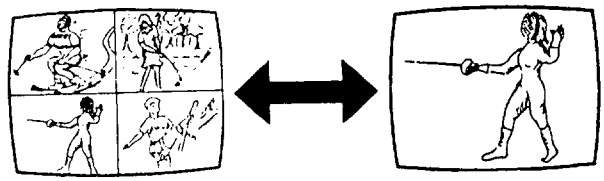
b) Storing up to four quarter-screen size pictures



Step 3.
To retrieve the stored still picture(s), push the "Call" Button. While the "M" Indicator is lit, the "Call" Button can be pushed to choose between normal (moving) picture and stored (still) picture.
c) Storing a signal full-screen picture



d) Storing up to four quarter-screen size pictures



To cancel the Picture Memory function :

1. Push "DIGITAL OFF" Button, or :
2. Turn off the TV Set with the "Power Switch" or "TV ON / OFF" Button

Note :
1) The sound cannot be stored.
2) While the picture memory function is activated, no other digital functions can be used.

Digital Functions

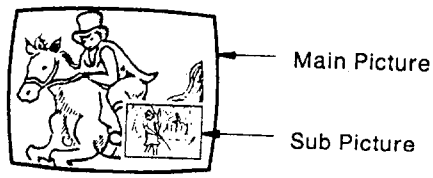
2. Picture-in-Picture Function (P-in-P)

Features :
This mode displays both the TV picture and the picture from an AV source on the same screen, for convenient monitoring of AV input while watching TV.

Operation Buttons :

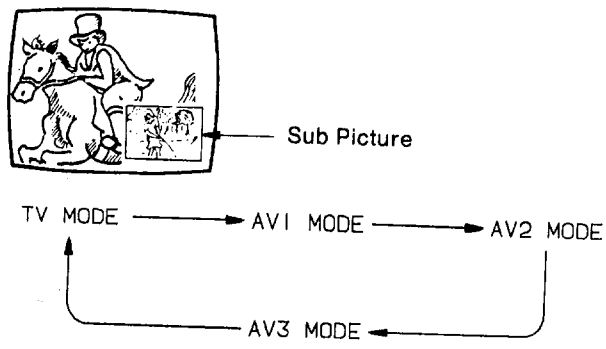
Remote Control :
(42) P-in-P Button
(43) CHANGE Button
(44) POSITION Button
(45) MODE Button
(55) DIGITAL OFF Button

Operation
Push the "P-in-P" Button to superimpose a small picture in the main picture.



The mode of the main picture is shown in the "Programme Number, Channel Number" Indicator. No mode is indicated for the sub picture.

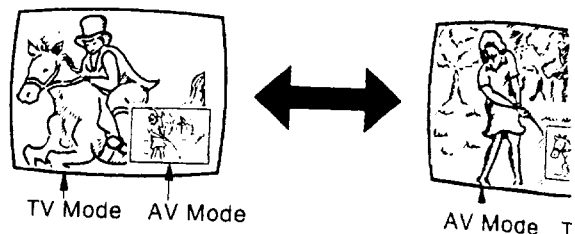
a) To change the mode of the sub picture, push the "Mode" Button.
At every push of the "Mode" Button, the mode of the sub picture changes as follows :



The AV modes "AV1", "AV2" and "AV3" refer to the AV sources connected to the AV Input Connectors of the TV Set.

Note :
When the main picture is in the AV mode and the sub picture in the TV mode, the TV channel number cannot be changed.

b) Exchanging the Main and Sub Pictures
Push the "CHANGE" Button to exchange th and the sub pictures, as shown below :



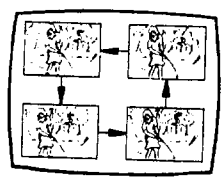
When the pictures are exchanged, "Programme Number, Channel Number" In tor only shows the mode of the main pictu shown below :

EX :
Main Picture : TV Mode
Sub Picture : AV Mode ➡ 2

Main Picture : AV Mode (AV3)
Sub Picture : TV Mode ➡ A3

Note :
The TV mode shows that programme number is selected.
The AV Mode shows that the AV source nected to the AV Input Connector 3 is selecte

c) Changing the Position of the Sub Picture
Push the "POSITION" Button to change the p tion of the sub (small) picture in the screen (main picture). At every push of this button, sub picture will advance to the next position, shown below :



To cancel the Picture-in-Picture function :

1. Push "DIGITAL OFF" Button, or :
2. Turn off the TV Set with the "Power Switch or "TV ON / OFF" Button

Note :
When the RGB signal is input to the Euro AV AV1) terminal, "Digital" function will not operate

Digital Functions

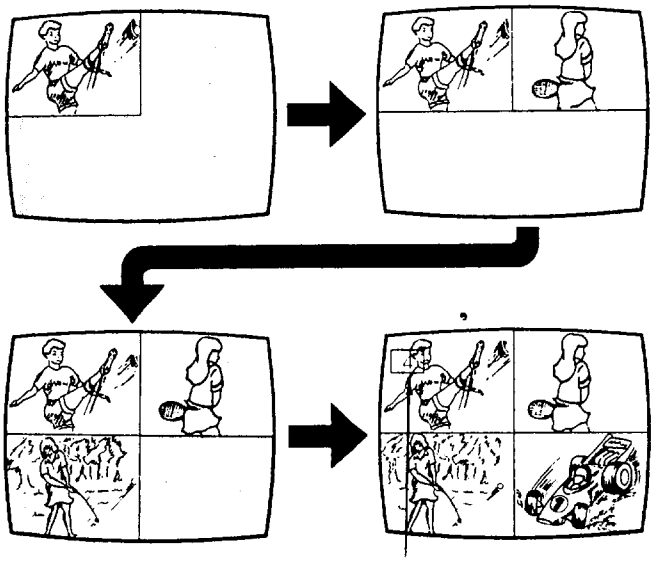
3. Programme Search Function

Features :
This function makes it possible to search through all programme positions and display a still picture of each on a four-picture or nine-picture screen.

Operation Buttons :
Remote Control :
(46) 4 CH SEARCH Button
(47) 9 CH SEARCH Button
(21) Direct Programme Number Selection Button
(55) DIGITAL OFF Button

Operation

Four-Picture Programme Search
When the "4 CH SEARCH" Button is pushed, the screen changes as follows :

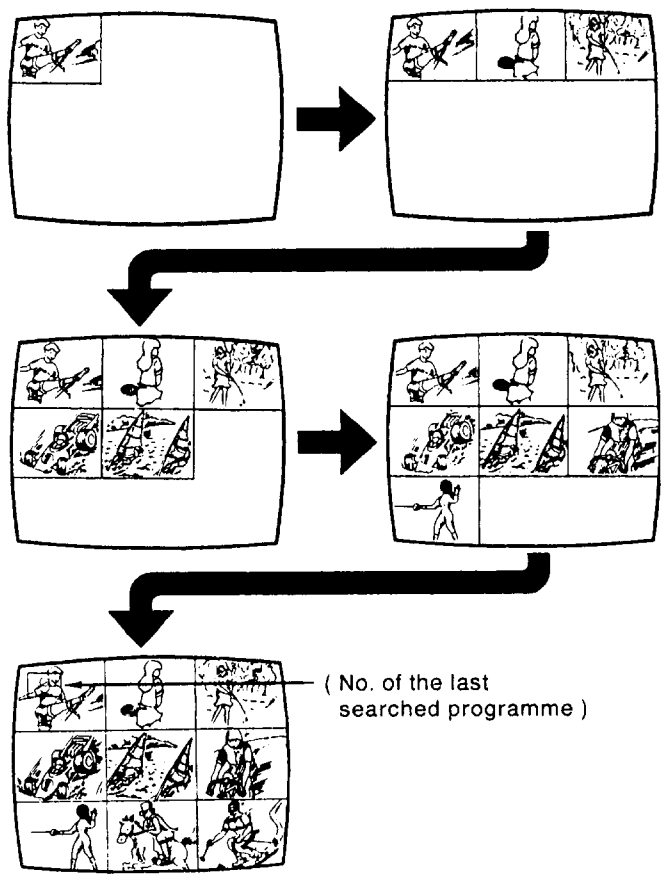


(No. of the last searched programme)

The pictures of 4 programmes will be displayed one after another, starting with programme position 1. When the fourth picture is displayed, the number of the last displayed programme position will be indicated in the upper left corner of the TV screen and Programme Number, Channel Number indicator. Push the " 4 CH SEARCH" Button again to display the picture of the next 4 programme positions.

Note :
1) Programme positions that are not preset with TV stations will be displayed as noise pictures.
2) Unused portions of the screen will be coloured blue.

Nine-Picture Search
When the "9 CH SEARCH" Button is pushed, the screen changes as follows :



(No. of the last searched programme)

The pictures of 9 programmes will be displayed one after another, starting with programme position 1. When the ninth programme is displayed, the number of the last displayed programme position will be indicated in the upper left corner of the TV screen and Programme Number, Channel Number indicator. Push the "9 CH SEARCH" Button again to display the pictures of the next 9 programme positions.

Note :
a) Programme positions that are not preset with TV stations will be displayed as noise pictures.
b) Unused portions of the screen will be coloured blue.

After performing 4- or 9-programme search, choose the desired programme position with the corresponding "Direct Programme Number" Selection Button.

Digital Functions

4. Strobe Function

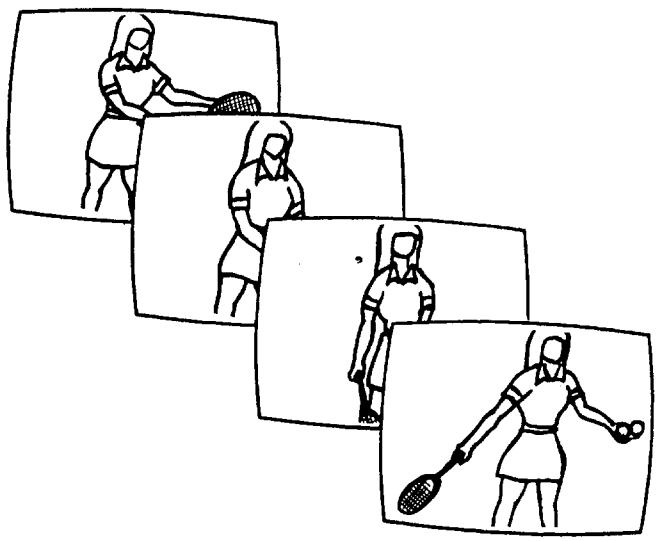
Features :
This function can be used to display sequential still pictures in the full-screen, 9-picture, and 16-picture screens at different stroboscopic speeds.

Operation Buttons :
Remote Control :

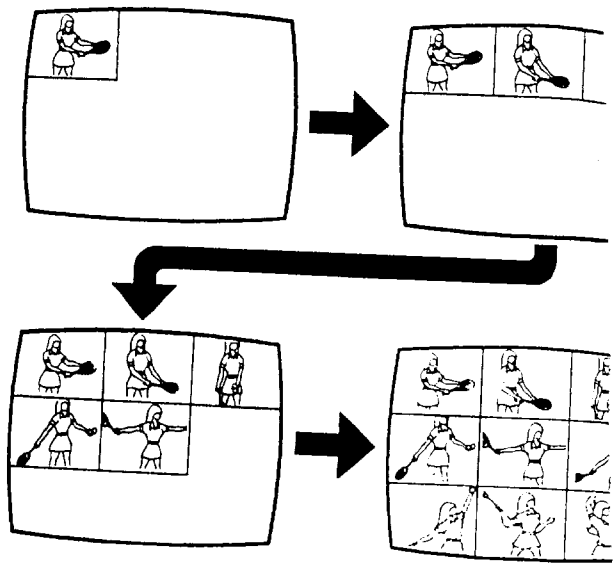
(48) 1-STROBE Button
(49) 9-STROBE Button
(50) 16-STROBE Button
(51) STROBE SPEED " + " (faster) and " – " (slower) Buttons
(55) DIGITAL OFF Button

Operation

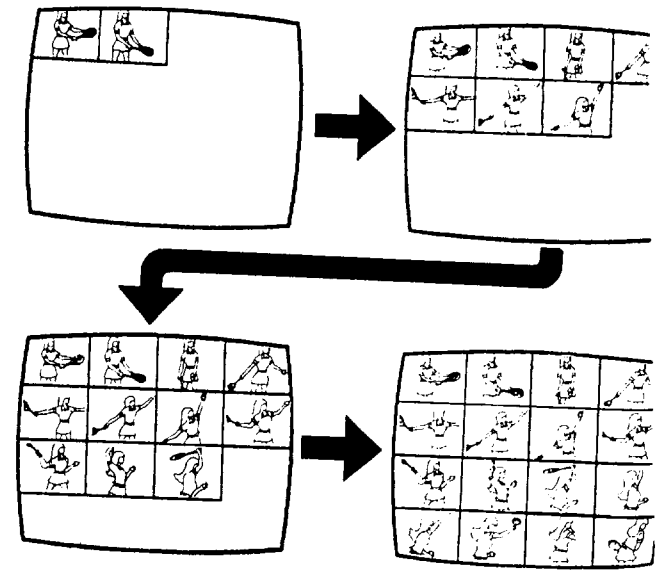
Full-Screen Storobe
Push the "1 STROBE" Button to display sequential still pictures with stroboscopic effect on the full screen.



9-Picture Strobe
Push "9 STROBE" Button to display sequential pictures in nine partitions on the screen.



16-Picture Screen Strobe
Push "16-STROBE" Button to display sequential still pictures in 16 partitions on the screen.



Note :
1) Unused partitions are coloured blue.
2) The last displayed partition shows a motion picture that moves to the right as the action is frozen in regular intervals.
3) When any STROBE function is being activated, upon pressing the related button. (1-STROBE, 9-STROBE or 16-STROBE) again, the activated picture will be viewed in still mode.
4) The strobe speed can be changed over a range from 1/50 msec to 3 sec by pushing the STROBE SPEED " + " or " – " Button.

To cancel the strobe function :
1) Push "DIGITAL OFF" Button.

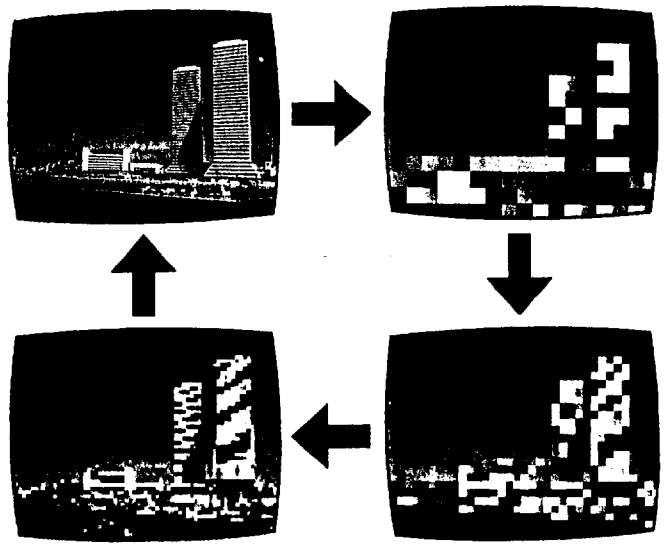
Digital Functions

5. Mosaic Art Function

Features :
This function breaks up the screen into small square cells to display a moving or still picture with mosaic effect. The mosaic effect can be varied in three stages.

Operation Buttons :
Remote Control :
(52) MOSAIC Button
(55) DIGITAL OFF Button

Operation
Every time the "MOSAIC" Button is pushed repeatedly, the picture will change as follows :



To cancel the mosaic art function :
a) Push the "MOSAIC" Button until a normal picture is reproduced.
b) Push "DIGITAL OFF" Button.

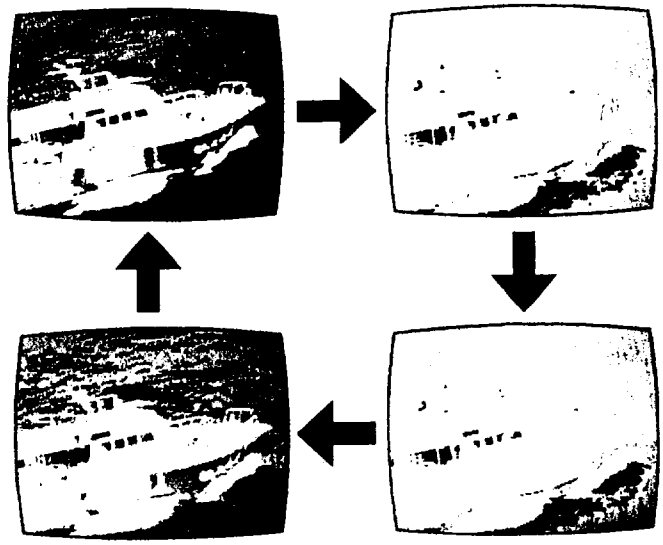
6. Paint Effect

Features :
This function can be used to display an oil-painting-like moving or still picture. The oil-painting-like effect can be varied in three stages.

Operation Buttons :
Remote Control :
(53) PAINT Button
(55) DIGITAL OFF Button

Operation

Every time the "PAINT" Button is pushed repeatedly, the picture will change as follows :



To cancel the paint effect function :
a) Push the "PAINT" Button until a normal picture is reproduced.
b) Push the "DIGITAL OFF" Button.

Digital Functions

7. Still Function

Features :
This function can be used to freeze the action on the screen and display a still picture.

Operation Buttons :
Remote Control :
(54) STILL Button
(55) DIGITAL OFF Button

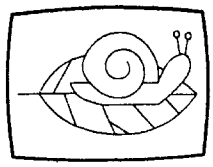
Operation
Push "Still" Button to freeze the moving picture into a still picture.

In the still mode, it is possible to give picture a mosaic or oil-painting-like effect by the pushing the "MOSAIC" Button or the "PAINT" Button.

To cancel the still function :
a) Push "STILL" Button.
b) Push the "DIGITAL OFF" Button .

TELETEXT Operation (By Remote Control only)

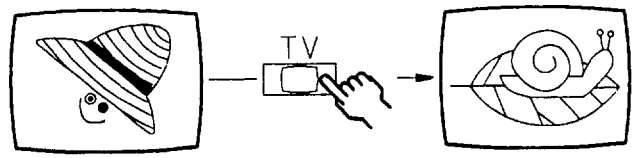
(Refer to diagram on page 6 and 7.)



This picture is used in this book to represent TV mode, all other pictures represent TELETEXT mode.

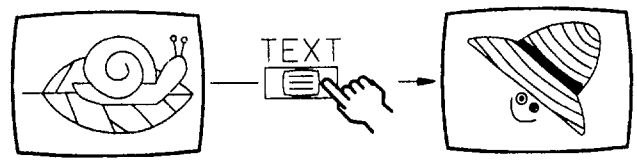
(56) TV Button

When this button is pushed during TELETEXT reception, the TV switches to the TV programme you selected previously.



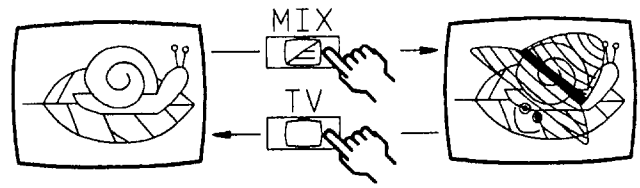
(57) Text Button

Pushing this button switches the TV from TV mode to TELETEXT mode.



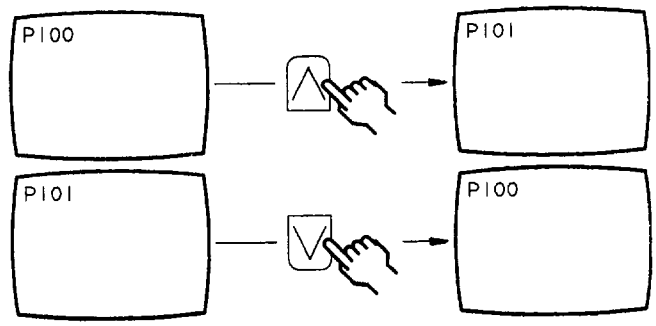
(58) Mix Button

Pushing this button superimposes TV picture on Text pattern for display.
Unless the sound is muted, sound will be present in either Text, Mix or TV mode.



(59) Page Up/Down Button

Push Page Number Up "∧" Button to step up to the next TELETEXT page.
Push Page Number Down "∨" Button to step down to the next TELETEXT page.



(60) Numerical Buttons (0 – 9)

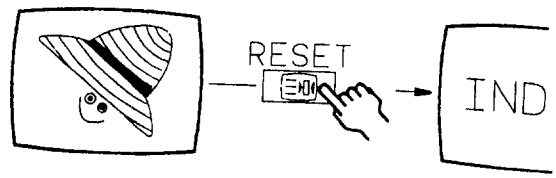
This button is used for page selection and time setting in the Teletext operation mode.
It can also be used to select a TV programme position (0 to 9).

TELETEXT Operation

(Refer to diagram on page 6 and 7.)

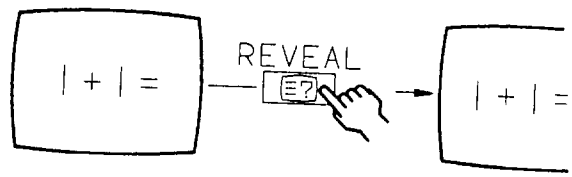
(61) Reset Button

By pushing this button, the teletext page that you are presently viewing will be reset to the main index page in "F.TEXT" Mode, or the page whose page number is preset at the red position in List mode.



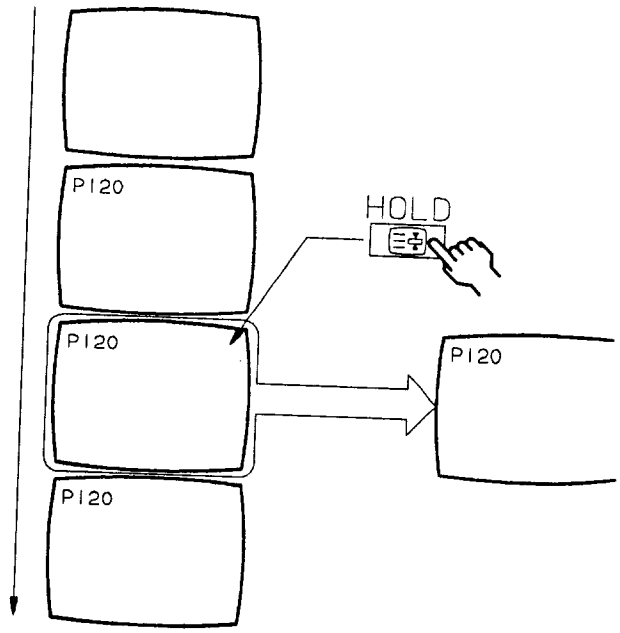
(62) Reveal Button

When a quiz programme page is selected, a question appears on the CRT display screen.
If you wish to display the answer to the question, push this button.



(63) Hold Button

When TELETEXT information exceeds one page, the page will change automatically.
When you desire to hold the display of a particular page, push this button.
To cancel hold, push this button again.
(The "Hold" mark is displayed at the Top left corner of the screen.)



TELETEXT Operation

(Refer to diagram on page 6 and 7.)

Note : Teletext system uses a 24 hour clock.

(64) Time Text Button

This function is used for selected page only, e.g. Alarm page.
(Refer to the "Teletext" index)

Step 1 :
Select your desired Text page.

Step 2 :
Push "Time Text" Button.
At that time, "T✱✱✱✱" is displayed in the Top left corner of the screen.

Step 3 :
Input your desired time, using 0 to 9 buttons of Remote Control **(60)** keys.

e.g. 9:30AM
Push "0" Button and then push "9", "3" and "0".

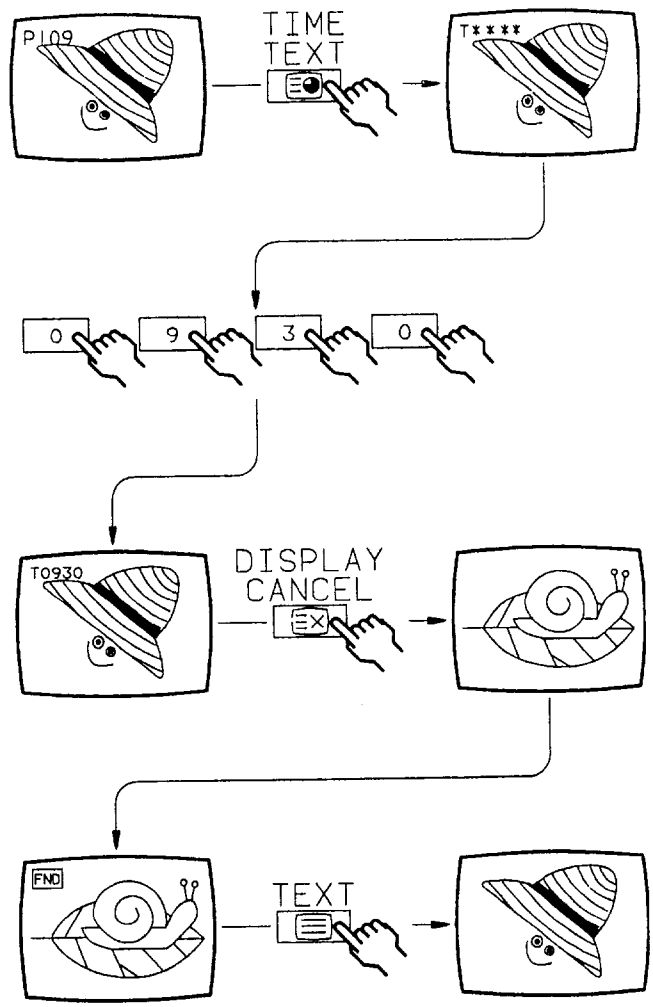
Note :
It is necessary to enter two digits for hours and minutes of "T✱✱✱✱", e.g. "09" for "9" o'clock, "05" for "5" minutes past the hour.

Step 4 :
Push "Display Cancel" Button **(65)** .
At this time, the screen is switched to TV mode, and Time Text has been preset.

Note :
Pushing "Display Cancel" Button **(65)** , you can view the screen in TV mode, but you cannot change TV programme position.
When the preset time is reached (9:30AM), the "FND" mark is displayed at the Top left corner of the screen.

Step 5 :
Pushing "Text" Button **(57)** changes from TV mode to the preset Teletext page.
Some signals from a broadcasting station may transmit the time display, using Page Number sub code. In this case, the time in **Step 3** is to be designated in sub code.
Sub code specification should be input using buttons 0 to 9 of remote control key **(60)** .

e.g. 365
Push "0" Button first, and push "3", "6", then "5".
For subsequent operation, start with **Step 4** .



TELETEXT Operation

(Refer to diagram on page 6 and 7.)

(05) Display Cancel Button

While a selected page is being searched for, TV picture can be viewed by pushing this button.
When that page is found, a message "FND" will be displayed at the top left corner of the screen.
Push "Text" Button to view this teletext page.

e.g. To watch a newsflash page:

Step 1 :

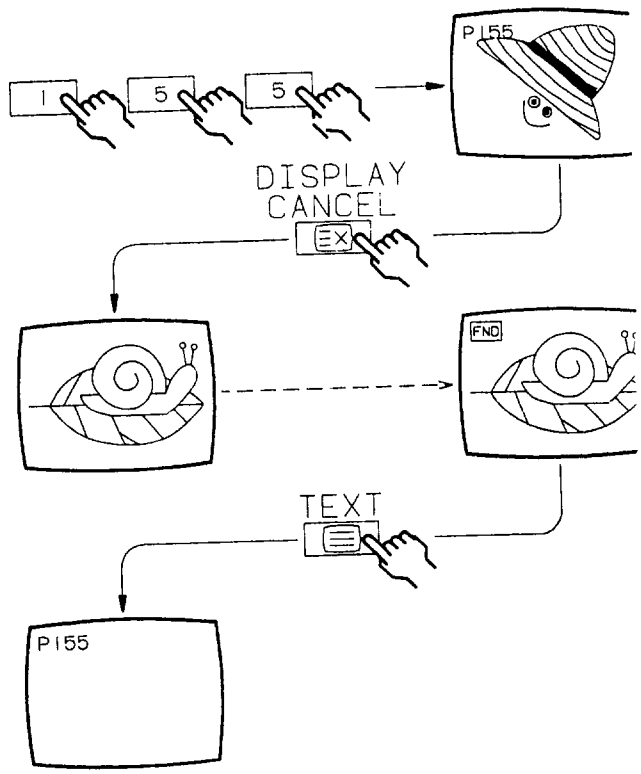
In Text mode, select a newsflash page.

Step 2 :

Push "Display Cancel" Button.
The TV switches from the Text page screen to TV picture.
Every time an updated newsflash information is available, the newsflash information will be displayed at the Bottom of the screen.
Note :
On-screen indicators for volume, Brightness .... etc. are cancelled in this mode. And programme number change can not be made.

Step 3 :

Push "Display Cancel" Button to remove the newsflash information from the screen.



(06) Full / Top / Bottom Button (F/T/B)

This function is used when characters on the TV screen are hard to read.

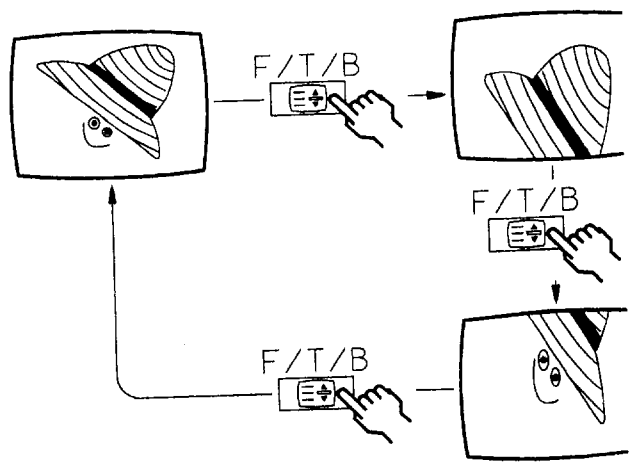
Pushing 1st time expands the upper half of the screen only.

Pushing 2nd time expands the lower half of the screen only.

Pushing 3rd time returns the display to its original size. (Full page)

Note :

When the next page is selected under the upper / lower display expanded conditions, the upper half of the next page is expanded for display.



TELETEXT Operation (F/TEXT and LIST mode)

(Refer to diagram on page 6 and 7.)

(67) List / F.TEXT Button

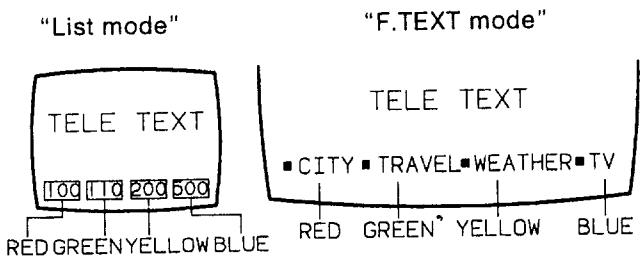
Push this button, in Text mode, to change from "F.TEXT" (Fast Text) to "List" Mode, and vice versa.

(68) List Store Button

Use this button to store desired page numbers into memory, in "List" Mode.
In each of programme position 1 to 10, 4 page numbers can be preset.

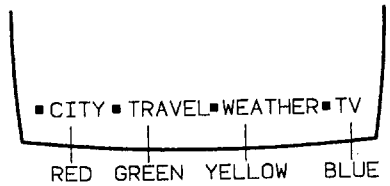
(69) Red / Green / Yellow / Blue Buttons

These 4 buttons are colour-coded to correspond with the preset page numbers (in "List" mode) or the subject's titles (in "F.TEXT" Mode) displayed at bottom of Teletext pages.



How to Operate "Fast Text" (F.TEXT) Mode

In "F.TEXT" Mode, select the desired teletext information by pushing one of the "colour-coded" Buttons on the remote controller which corresponds with the colored subject's title on the screen.



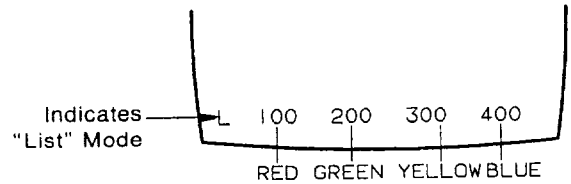
e.g.
Push "Yellow" Button on Remote Controller to view a "weather" page.
Follow similar procedure to access other pages of Teletext.

Note :

Subject's titles and their sequence for access are set-up by TV broadcast channels, they are not user's definable with the Remote Controller.
It is a convenient way of accessing some Teletext pages without the need to enter page numbers.

How to Operate "List" Mode

In "List" Mode the 4 subject's titles at the bottom of the screen change to 4 page numbers.



Procedure :

(1) To select the memory position, push one of the "colour-coded" Buttons on the Remote Controller, e.g. Red, Green, Yellow, or Blue Button.
(2) Using buttons "0" to "9" on the Remote Controller, enter the page number of the desired text.
(3) Repeat steps (1) and (2) for the remaining positions if required. Up to 4 page numbers can be preset for each programme position 1 to 10.
(4) To store these page numbers into memories, push the "List Store" Button **(68)** and hold until the background of the 4 numbers change from Black to White.
(5) Even time a "List " Mode is selected, these 4 page numbers will flash until all 4 pages have been found and stored into memories.
Any one of these 4 pages can be displayed instantly by pushing the corresponding "colour coded" Button on the Remote Controller.

Note :

(1) If a new page number is entered for viewing, it will not replace the previous number in the memory at that position unless the "List Store" Button is pushed and held down for a few seconds.
The 4 page numbers will be reset to the preset numbers when either the "Reset" Button **(61)** is pushed or programme position is changed, or mode changed to F.TEXT then return to list mode again, or TV set is turned off.
(2) The 4 preset page numbers can be changed when required, by following procedures 1 to 4 above.
(3) Page numbers preset can only be performed on programme number 1 to 10.

TELETEXT Operation

(Refer to diagram on page 6 and 7.)

(70) Alarm Button

This function works as time alarm in TV or TELE-TEXT mode.

e.g.
Assume that the time now is 9:30 am, and that your desired programme, perhaps on another channel, will be broadcasted in 2 hours time (11:30 am). In this case, set the alarm to 2 hours.
When the preset time is reached, "PANASONIC ALARM" is displayed in the middle of the screen for approx. 20 seconds.

At that time, select your desired programme.

Setting Method:

Present time 9:30 AM
Target time 11:30 AM
The target time is 2 hours from the present time.
Input the time difference between the present time and the target time.

Step 1:

Push "Alarm" Button.
"PANASONIC ALARM" is displayed in the center of the screen, and "T✱✱: ✱✱" is displayed at the bottom of the screen.

Step 2:

Use buttons 0 to 9 of Remote Control **(60)** key for inputting the time difference.
Push "0" Button first, and then push "2", "0" and "0".

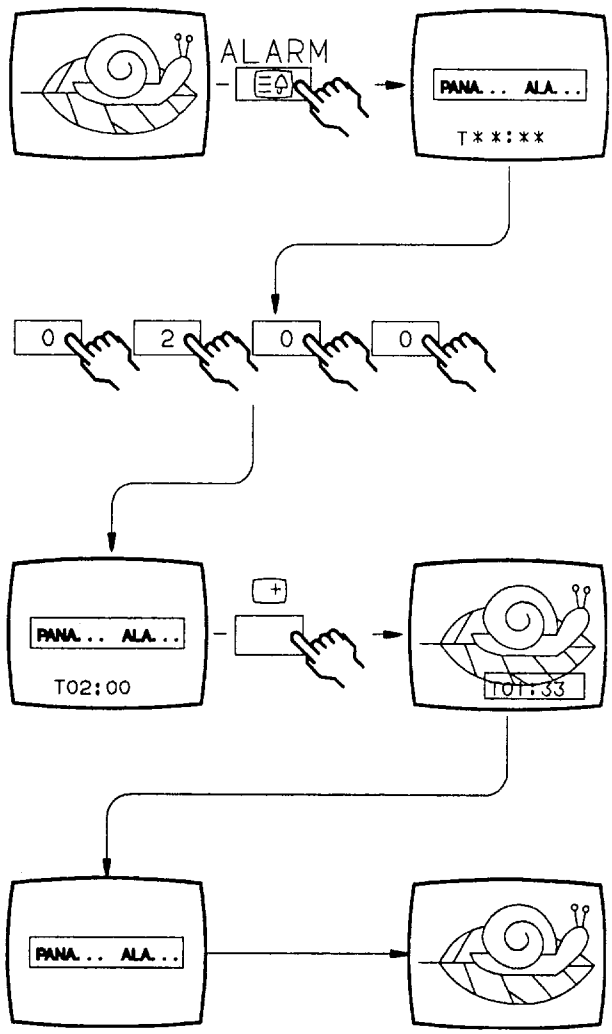
Note:

It is necessary to enter two figures before and after the colon of "T✱✱: ✱✱".

Step 3:

After key input, the screen changes to TV mode.
If you wish to know how long you have before the alarm page will appear, push "Status" Button.
The remaining setting time is displayed in the bottom center of the screen. To change the setting time, push "Alarm" Button again and enter the time in the same manner as in **Step 2** .

To cancel the setting time;
Push "Alarm" Button.



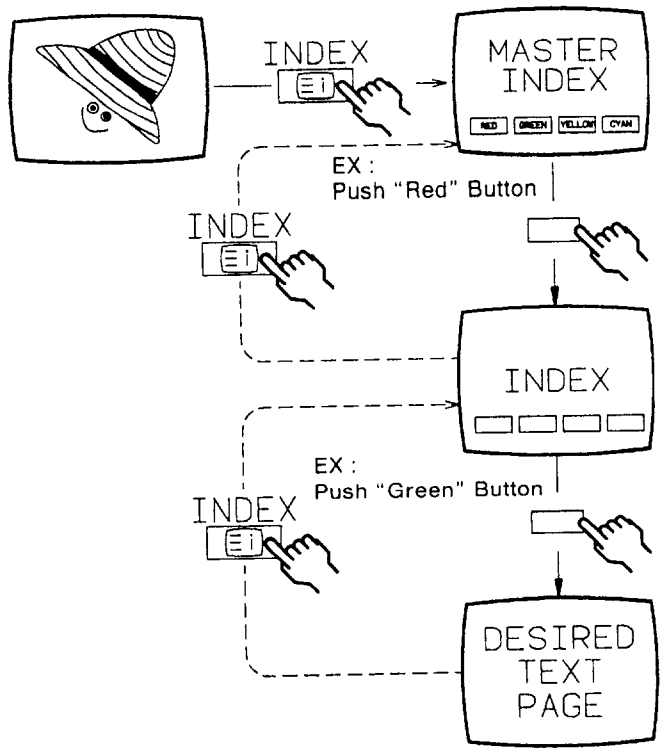
TELETEXT Operation

(Refer to diagram on page 6 and 7.)

(71) Index Button

Push this button, in "F.TEXT" Mode, to return to index page.

Depending on the way information is transmitted by each TV channel, this "INDEX" Button may need to be pushed more than once to return to the main index page.



Specifications

Power Source :	AC 240 V, 50 Hz	
Power Consumption :	220 W (Stand-by condition 12 W)	
Receiving System :	CCIR : 625 Lines, PAL I	
Receiving Channels :	UHF Channel 21 to 68	
Tuning System :	Frequency synthesized	
Picture Tube :	33 inches (78 cm) measured diagonally, 110° deflection	
Audio Output :	Internal Speaker	2 x 10 W (Music 10 % distortion) Impedance 8 Ω
	External Speaker	2 x 35 W (Music 10 % distortion, Impedance 4 Ω) Impedance 4 Ω - 8 Ω
Antenna Impedance :	75 Ω Unbalanced coaxial	
Headphones :	Socket I : Impedance 8 Ω Sub Picture Socket : Impedance 8 Ω	
Video / Audio Terminals :		
	AV1 IN	Video (Euro AV) 1 Vp-p 75 Ω Audio (Euro AV) 0.67 Vrms, 10 K Ω
	AV1 OUT	Video (Euro AV) 1 Vp-p 75 Ω Audio (Euro AV) 0.67 Vrms, (100 % modulation) 10 KΩ
	AV2 IN	Video (BNC) 1 Vp-p 75 Ω S-Video Y : 1.0 Vp-p 75 Ω C : 0.3 Vp-p 75 Ω Audio (RCA) 0.67Vrms, 10K Ω
	AV3 IN	Video (BNC) 1 Vp-p 75 Ω Audio (RCA) 0.67 Vrms, 10 K Ω
	Monitor OUT	Video (BNC) 1 Vp-p 75 Ω Audio (RCA) 0.67 Vrms, 10K Ω
Accessories supplied :	Remote controller X 1 R6 Battery X 2	
Dimensions (W x D x H) :	815 x 542 x 680 mm	
Weight :	64.5 kg (NET)	

Note :
Design and Specifications are subject to change without notice.
Weight and Dimensions shown are approximate.

TV Games and Home Computers

The extended use of TV Games and Home Computers with any television set can cause a permanent "shadow image" on the picture tubes. This background image is viewable on normal programmes in the form of the stationary TV Game and Home Computer objects. This type of irreversible damage to the picture tubes that TV Games and Home Computers cause, can be limited by observing the following steps.

1. Reduce the brightness/contrast setting to a minimum viewing level during TV Game and Home Computer operation.
2. Do not operate the television set with TV Games and Home Computers continuously for extended periods of time.
3. Be sure to turn the television set off when not actually using it.
   The marking image on the picture tube resulting from excessive TV Game and Home Computer use is not an operation defect and is as such not covered by Panasonic U.K. Ltd.'s Warranty. Television sets are not designed to display TV Game and Home Computer patterns continuously for extended periods of time.

Customer's Record

The serial number of this product may be found on its rear cover. You should note the number of this unit in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model Number **TX-33A1G** Serial Number _____